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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 02	LMEDLINE coverage updated
NEWS 3	JUL 02	SCISEARCH enhanced with complete author names
NEWS 4	JUL 02	CHEMCATS accession numbers revised
NEWS 5	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 6	JUL 16	CAplus enhanced with French and German abstracts
NEWS 7	JUL 18	CA/CAplus patent coverage enhanced
NEWS 8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9	JUL 30	USGENE now available on STN
NEWS 10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 11	AUG 06	BEILSTEIN updated with new compounds
NEWS 12	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 13	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 14	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 15	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 16	AUG 27	USPATOLD now available on STN
NEWS 17	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 18	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 19	SEP 13	FORIS renamed to SOFIS
NEWS 20	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 21	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 22	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 23	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 24	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:29:01 ON 19 OCT 2007

=> FILE REG
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 10:29:34 ON 19 OCT 2007

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 OCT 2007 HIGHEST RN 950981-10-9
DICTIONARY FILE UPDATES: 18 OCT 2007 HIGHEST RN 950981-10-9

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http://www.cas.org/support/stngen/stndoc/properties.html

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L1 STRUCTURE UPLOADED

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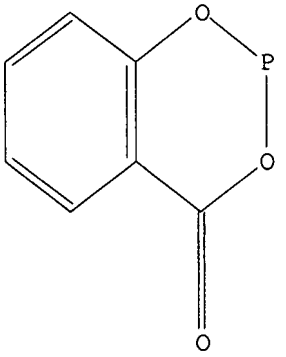
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> S L1 FULL

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FULL SCREEN SEARCH COMPLETED - 1201 TO ITERATE

100.0% PROCESSED 1201 ITERATIONS 345 ANSWERS
SEARCH TIME: 00.00.01

L2 345 SEA SSS FUL L1

=> FILE CAPLUS
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	172.31

FILE 'CAPLUS' ENTERED AT 10:30:21 ON 19 OCT 2007
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FILE COVERS 1907 - 19 Oct 2007 VOL 147 ISS 18
FILE LAST UPDATED: 18 Oct 2007 (20071018/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

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L1 HAS NO ANSWERS
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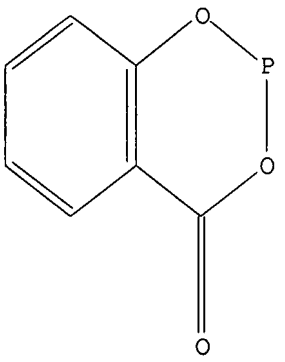

Structure attributes must be viewed using STN Express query preparation.

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=> S L3 AND BASIC ION EXCHANGE RESIN
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                 (BASIC(W)ION(W)EXCHANGE(W)RESIN)
L4           1 L3 AND BASIC ION EXCHANGE RESIN

=> S L2 AND RESIN
           319 L2
        645421 RESIN
L5          12 L2 AND RESIN

=> D L4 IBIB ABS HITSTR 1

L4   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2005:612314  CAPLUS
DOCUMENT NUMBER:          143:97529
TITLE:                    Improved process for preparation of
                          organoacylphosphites by condensation of
                          hydroxycarboxylic acids with phosphorous halides in
                          the presence of basic ion-exchange resins.
INVENTOR(S):              Ortmann, Dagmara; Wiese, Klaus-Diether; Moeller,
                          Oliver; Fridag, Dirk
PATENT ASSIGNEE(S):       Oxeno Olefinchemie G.m.b.H., Germany
SOURCE:                   PCT Int. Appl., 52 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     DE 10360772           A1    20050728    DE 2003-10360772        20031223
     EP 1697390            A1    20060906    EP 2004-820837          20041027
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     CN 1898256            A     20070117    CN 2004-80038836        20041027
     MX 2006PA05977        A     20060706    MX 2006-PA5977          20060525
     US 2007117995         A1    20070524    US 2006-584492          20061208
PRIORITY APPLN. INFO.:                        DE 2003-10360772    A   20031223
                                              WO 2004-EP52675     W   20041027

OTHER SOURCE(S):          MARPAT 143:97529
AB   Acylphosphites, preferably 2-L-5-R4-6-R3-7-R2-8-R1-benzo[e][1,3,2]-
     dioxaphosphorin-4-ones (L = halide or C- or O-bound organyl; R1-R4 =
     (un)substituted alkyl or (hetero)aryl C1-50 groups, eventually containing
     ether, ketone, ester sulfide, sulfonyl, sulfoxide, sulfonamide, amino and
     imino functions, or eventually forming benzannelated ring systems) useful
     as softeners, fire protectors, UV-stabilizers, antioxidants, intermediates
     for preparation of pesticides or pharmaceuticals (no data), were prepared by
     continuous or discontinuous process comprising the reaction of
     hydroxycarboxylic acids, preferably of 3-R1-4-R2-5-R3-6-R4-salicylic acids
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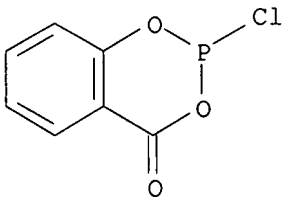
with phosphorous halide derivs. PXnR3-n (R = L, n = 2, 3) in inert solvents in the presence of weak basic ion exchange resins, preferably dialkylamino-containing styrene-divinylbenzene copolymers (e.g., Lewatit MP-62, DOWEX M-43 and Amberlyst A21), preferably at 20-100°, preferably in the presence of homogeneous weak base (e.g. N-methylpyrrolidone, methylimidazole) in base:resin molar ratio of 0.001 to 0.01. Mixed acylphosphites containing trialkyl phosphite, phosphonite or phosphinite structural fragments, 2-X1O-5-R1-6-R2-7-R3-8-R4-benzo[e][1,3,2]-dioxaphosphorin-4-ones (same R1-R4, X1 = R5R6POQO, where Q = at least divalent organic radical) were prepared by mono-esterification of phosphorous halides with glycols followed by reaction with corresponding 2-chloro-1,3,2-dioxaphosphorin-4-ones. In an example, 2-chloro-4H-naphtho[1,2-d]-1,3,2-dioxaphosphorin-4-on was prepared by reaction of 0.05 mol of 1-hydroxy-2-naphthalenecarboxylic acid with 58 g of ion exchanger Lewatit MP-62 and 0.005 mol of PCl3 in 250 mL of toluene at room temperature in 75% yield. The inventive method makes it possible to easily produce trivalent organophosphorus compds. such as ligands in rhodium complexes that can be used as catalysts during hydroformylation.

IT 5381-99-7P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(improved process for preparation of acylphosphites by condensation of hydroxycarboxylic acids with phosphorous halides in presence of basic ion exchange resins)

RN 5381-99-7 CAPLUS

CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)

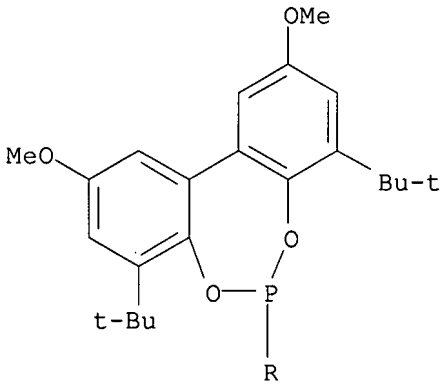


IT 352662-26-1P 352662-32-9P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(improved process for preparation of acylphosphites by condensation of hydroxycarboxylic acids with phosphorous halides in presence of basic ion exchange resins)

RN 352662-26-1 CAPLUS

CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-[[2'-[[4,8-bis(1,1-dimethylethyl)-2,10-dimethoxydibenzo[d,f][1,3,2]dioxaphosphepin-6-yl]oxy]-3,3'-bis(1,1-dimethylethyl)-5,5'-dimethoxy[1,1'-biphenyl]-2-yl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



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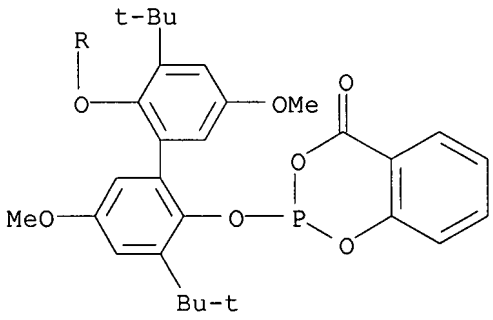
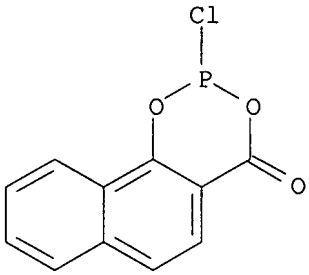


RN 352662-32-9 CAPLUS
CN 4H-Naphtho[1,2-d]-1,3,2-dioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L5 IBIB ABS HITSTR 1-12

L5 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1189263 CAPLUS
DOCUMENT NUMBER: 143:441321
TITLE: Liquid stabilizer compositions with good solubility and storage stability for chlorine-containing resins
INVENTOR(S): Ikegami, Kiyoshi; Kishino, Katsuhiko
PATENT ASSIGNEE(S): Akishima Chemical Industries Co., Ltd., Japan

SOURCE: Jpn. Tokkyo Koho, 21 pp.
CODEN: JTXXFF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 3713270	B1	20051109	JP 2004-255752	20040902
JP 2006070177	A	20060316		
PRIORITY APPLN. INFO.:			JP 2004-255752	20040902

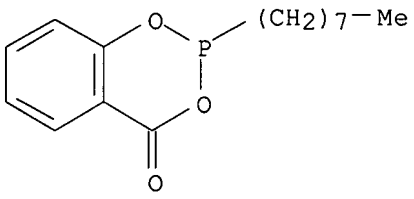
OTHER SOURCE(S): MARPAT 143:441321

AB Title compns. comprise (A) ≥1 carboxylic acids and/or alkylphenol metal salts, (B) ≥1 phosphite (R1O)(R2O)(R3O)P, and (C) mixed solvents comprising (C-1) 5-95% ≥1 glycol R4O(CH2CR5HO)nH with b.p. ≥250° and (C-2) 5-95% ≥1 hydrocarbon solvent with b.p. ≥250° selected from aromatic, aliphatic, and alicyclic hydrocarbon, wherein R1, R2, R3 = C10-18 linear, branched, or (un)saturated alkyl; R4 = C1-8 alkyl; R5 = H or methyl; and n = 1-6. Thus, a composition comprising 70% a stabilizer component containing barium oleate 50, zinc 2-ethylhexanoate 5, zinc benzoate 10, tridecylphosphite 30, dibenzoylmethane 3, and Tominox TT 2% and 30% a solvent mixture comprising 95% tetraethylene glycol monobutyl ether and 5% Pansolve H (alkyl benzene mixture) showed good solubility and storage stability.

IT 868764-44-7
RL: MOA (Modifier or additive use); USES (Uses)
(stabilizer; liquid stabilizer compns. with good solubility and storage stability for chlorine-containing resins)

RN 868764-44-7 CAPLUS

CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-octyl- (CA INDEX NAME)



L5 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:612314 CAPLUS
DOCUMENT NUMBER: 143:97529
TITLE: Improved process for preparation of organoacylphosphites by condensation of hydroxycarboxylic acids with phosphorous halides in the presence of basic ion-exchange resins.
INVENTOR(S): Ortmann, Dagmara; Wiese, Klaus-Diether; Moeller, Oliver; Fridag, Dirk
PATENT ASSIGNEE(S): Oxeno Olefinchemie G.m.b.H., Germany
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063781	A1	20050714	WO 2004-EP52675	20041027

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

DE 10360772	A1	20050728	DE 2003-10360772		20031223
EP 1697390	A1	20060906	EP 2004-820837		20041027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
CN 1898256	A	20070117	CN 2004-80038836		20041027
MX 2006PA05977	A	20060706	MX 2006-PA5977		20060525
US 2007117995	A1	20070524	US 2006-584492		20061208
PRIORITY APPLN. INFO.:			DE 2003-10360772	A	20031223
			WO 2004-EP52675	W	20041027

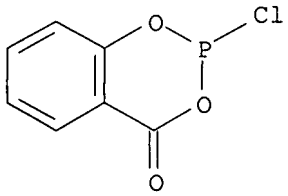
OTHER SOURCE(S): MARPAT 143:97529

AB Acylphosphites, preferably 2-L-5-R4-6-R3-7-R2-8-R1-benzo[e][1,3,2]-dioxaphosphorin-4-ones (L = halide or C- or O-bound organyl; R1-R4 = (un)substituted alkyl or (hetero)aryl C1-50 groups, eventually containing ether, ketone, ester sulfide, sulfonyl, sulfoxide, sulfonamide, amino and imino functions, or eventually forming benzannelated ring systems) useful as softeners, fire protectors, UV-stabilizers, antioxidants, intermediates for preparation of pesticides or pharmaceuticals (no data), were prepared by continuous or discontinuous process comprising the reaction of hydroxycarboxylic acids, preferably of 3-R1-4-R2-5-R3-6-R4-salicylic acids with phosphorous halide derivs. PXnR3-n (R = L, n = 2, 3) in inert solvents in the presence of weak basic ion exchange resins, preferably dialkylamino-containing styrene-divinylbenzene copolymers (e.g., Lewatit MP-62, DOWEX M-43 and Amberlyst A21), preferably at 20-100°, preferably in the presence of homogeneous weak base (e.g. N-methylpyrrolidone, methylimidazole) in base:resin molar ratio of 0.001 to 0.01. Mixed acylphosphites containing trialkyl phosphite, phosphonite or phosphinite structural fragments, 2-X1O-5-R1-6-R2-7-R3-8-R4-benzo[e][1,3,2]-dioxaphosphorin-4-ones (same R1-R4, X1 = R5R6POQO, where Q = at least divalent organic radical) were prepared by mono-esterification of phosphorous halides with glycols followed by reaction with corresponding 2-chloro-1,3,2-dioxaphosphorin-4-ones. In an example, 2-chloro-4H-naphtho[1,2-d]-1,3,2-dioxaphosphorin-4-on was prepared by reaction of 0.05 mol of 1-hydroxy-2-naphthalenecarboxylic acid with 58 g of ion exchanger Lewatit MP-62 and 0.005 mol of PCl3 in 250 mL of toluene at room temperature in 75% yield. The inventive method makes it possible to easily produce trivalent organophosphorus compds. such as ligands in rhodium complexes that can be used as catalysts during hydroformylation.

IT 5381-99-7P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(improved process for preparation of acylphosphites by condensation of hydroxycarboxylic acids with phosphorous halides in presence of basic ion exchange resins)

RN 5381-99-7 CAPLUS

CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



IT 352662-26-1P 352662-32-9P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(improved process for preparation of acylphosphites by condensation of hydroxycarboxylic acids with phosphorous halides in presence of basic ion exchange resins)

RN 352662-26-1 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-[[2'-[[4,8-bis(1,1-dimethylethyl)-2,10-dimethoxydibenzo[d,f][1,3,2]dioxaphosphepin-6-yl]oxy]-3,3'-bis(1,1-dimethylethyl)-5,5'-dimethoxy[1,1'-biphenyl]-2-yl]oxy]- (9CI) (CA INDEX NAME)

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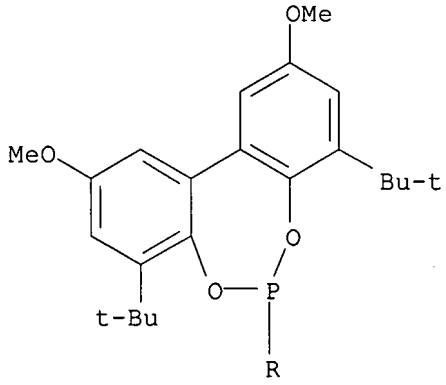

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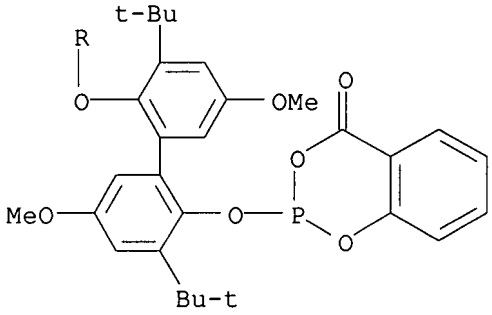
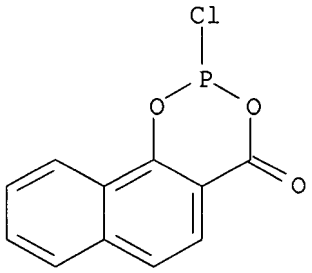
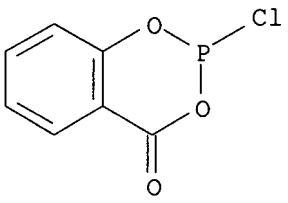


RN 352662-32-9 CAPLUS
CN 4H-Naphtho[1,2-d]-1,3,2-dioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:137627 CAPLUS
DOCUMENT NUMBER: 134:252422
TITLE: An improved preparation of α-fluorinated propargylphosphonates and the solid phase synthesis of α-hydroxy-γ-TIPS propargylphosphonate ester
AUTHOR(S): Wang, ZhiGang; Gu, Yonghong; Zapata, Antonio J.; Hammond, Gerald B.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of Massachusetts Dartmouth, North Dartmouth, MA, 02747, USA
SOURCE: Journal of Fluorine Chemistry (2001), 107(1), 127-132
CODEN: JFLCAR; ISSN: 0022-1139
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:252422
AB Diethyl-3-triisopropylsilyl-1-propynephosphonate was fluorinated using NFSI to give the corresponding monofluoro derivative in good yield. The synthesis of diethyl-1,1-difluoro-3-triisopropylsilylpropynephosphonate was efficiently achieved following Burton's methodol. using CuCl/Cd to promote the coupling reaction of di-Et bromodifluoromethylphosphonate with the corresponding alkynyl iodide. Although the solid phase synthesis of α-hydroxy-γ-TIPS propargylphosphonate ester was carried out successfully, its fluorination - using DAST - failed.
IT 5381-99-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with Wang-resin)
RN 5381-99-7 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:89388 CAPLUS
DOCUMENT NUMBER: 132:138497
TITLE: Stabilized vinyl chloride resin compositions without environmental hormones (endocrine disrupters) for food packaging films
INVENTOR(S): Sato, Tamotsu; Ono, Michinobu
PATENT ASSIGNEE(S): Akishima Kagaku Kogyo K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 2000038487	A	20000208	JP 1998-206421	19980722
JP 3009388	B2	20000214		

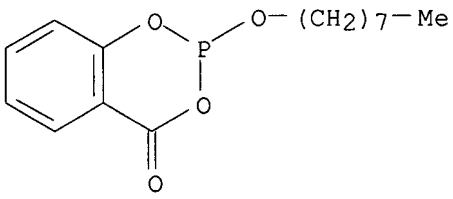
PRIORITY APPLN. INFO.: JP 1998-206421 19980722

AB The compns. contain (A) 0.05-2 phr of molten mixts. obtained by heating Ca oleate (I)-Ca ricinoleate and/or -Ca benzoate (II) mixts. with Zn oleate and/or Zn ricinoleate (III) and epoxidized soybean oil or epoxidized linseed oil and (B) 0.001-1 phr of molten mixts. obtained by heating tridecyl polyoxyethylene (4-10 mol) phosphate (IV) and H3PO4 or H3PO3. Thus, I 14, Ca isodecanoate 14, II 7, III 8, Zn 2-ethylhexylate 7, and epoxidized soybean oil 50 g were stirred at 80° for 30 min to give a mixture (A), sep., 80 g IV and 20 g H3PO4 were heated to 130° for 5 min to give another mixture (B). PVC was kneaded with diisononyl adipate 40, epoxidized soybean oil 10, isostearic acid 0.3, polyglycerin oleate 1.0, sorbitan monolaurate 2.0, A 1.0, and B 0.1 phr and made into a sheet showing good thermal stability, reduced plate out, and good lubricity.

IT 2077-03-4
RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)
(vinyl chloride resin compns. stabilized without endocrine disrupters for food packaging films)

RN 2077-03-4 CAPLUS

CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-(octyloxy)- (8CI, 9CI) (CA INDEX NAME)



L5 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:649449 CAPLUS

DOCUMENT NUMBER: 132:133708

TITLE: Quantitative Analysis of Receptors for Adenosine Nucleotides Obtained via In Vitro Selection from a Library Incorporating a Cationic Nucleotide Analog

AUTHOR(S): Battersby, Thomas R.; Ang, Darwin N.; Burgstaller, Petra; Jurczyk, Simona C.; Bowser, Michael T.; Buchanan, Danielle D.; Kennedy, Robert T.; Benner, Steven A.

CORPORATE SOURCE: Department of Chemistry Department of Anatomy and Cell Biology and the Florida Center for Heterocyclic Compounds, University of Florida, Gainesville, FL, 32611, USA

SOURCE: Journal of the American Chemical Society (1999), 121(42), 9781-9789
CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

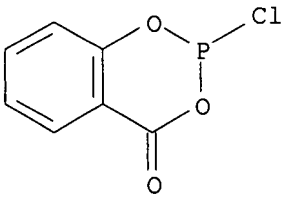
AB 5-(3''-Aminopropynyl)-2'-deoxyuridine (dJ), a modified nucleoside with a side chain carrying a cationic functional group, was incorporated into an oligonucleotide library, which was amplified using the Vent DNA polymerase in a polymerase chain reaction (PCR). When coupled to an in vitro selection procedure, PCR amplification generated receptors that bind ATP. This is the first example of an in vitro selection generating oligonucleotide receptors where the oligonucleotide library has incorporated a cationic nucleotide functionality. The selection yielded

functionalized receptors having sequences differing from a motif known to arise in a standard selection experiment using only natural nucleotides. Surprisingly, both the natural and the functionalized motifs convergently evolved to bind not one, but two ATP mols. cooperatively. Likewise, the affinity of the receptors for ATP had converged; in both cases, the receptors are half saturated at the 3 mM concns. of ATP presented during the selection. The convergence of phenotype suggests that the outcome of this selection experiment was determined by features of the environment during which selection occurs, in particular, a highly loaded affinity resin used in the selection step. Further, the convergence of phenotype suggests that the optimal mol. phenotype has been achieved by both selections for the selection conditions. This interplay between environmental conditions demanding a function of a biopolymer and the ability of the biopolymer to deliver that function is strictly analogous to that observed during natural selection, illustrating the nature of life as a self-sustaining chemical system capable of Darwinian evolution.

IT 5381-99-7, 2-Chloro-4H-1,3,2-benzodioxaphosphorin-4-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of a cationic nucleotide analog)

RN 5381-99-7 CAPLUS

CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:530224 CAPLUS

DOCUMENT NUMBER: 125:275977

TITLE: Combinatorial method for the synthesis of α-hydroxy phosphonates on Wang resin

AUTHOR(S): Cao, Xiaodong; Mjalli, Adnan M. M.

CORPORATE SOURCE: Ontogen Corp., Carlsbad, CA, 92009, USA

SOURCE: Tetrahedron Letters (1996), 37(34), 6073-6076
CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

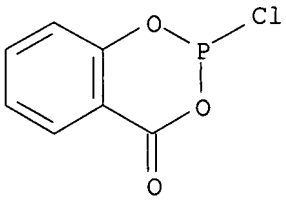
OTHER SOURCE(S): CASREACT 125:275977

AB An efficient synthesis of α-hydroxy phosphonates was achieved via the reaction of polymer supported H-phosphonate ester·DBU salts with aldehydes. For example, R2CH(OH)P(O)(OH)(OR1) (R1 = Et; R2 = p-FC6H4) was obtained in 90% yield.

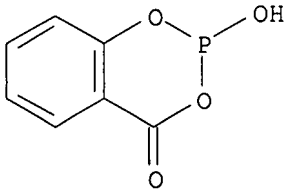
IT 5381-99-7, 2-Chloro-4H-1,3,2-benzodioxaphosphorin-4-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(combinatorial method for synthesis of α-hydroxy phosphonates on Wang resin)

RN 5381-99-7 CAPLUS

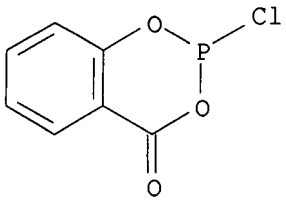
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



IT 6083-14-3DP, 2-Hydroxy-4H-1,3,2-benzodioxaphosphorin-4-one, Wang resin-supported
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(combinatorial method for synthesis of α-hydroxy phosphonates on Wang resin)
RN 6083-14-3 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-hydroxy- (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:477573 CAPLUS
DOCUMENT NUMBER: 125:221986
TITLE: A combinatorial method for the solid phase synthesis of α-amino phosphonates and phosphonic acids
AUTHOR(S): Zhang, Chengzhi; Mjalli, Adnan M. M.
CORPORATE SOURCE: Ontogen Corporation, Carlsbad, CA, 92009, USA
SOURCE: Tetrahedron Letters (1996), 37(31), 5457-5460
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:221986
AB Lewis acids or ultrasound catalyze the condensation of imines with Wang resin-bound H-phosphonates to give high yields of the corresponding α-amino phosphonates or phosphonic acids. Thus, condensation of imines with resin-bound HOP(O)(H)OR1 (R1 = CH2Ph, CH2CH2C6H4NO2-4) either in presence of Yb(OTf)3 catalyst or during sonication followed by cleavage of product from the resin with CF3CO2H in CH2Cl2 gave 81-96% yields of HOP(O)(OR1)CR2R3NHR4 (same R1; R2 = 4-MeOC6H4, 4-FC6H4, Ph, Pr; R3 = H, Me; R4 = Bu, Ph, 2-FC6H4CH2, PhCH2, 4-MeOC6H4CH2). The two methods are complementary and allow direct access to a highly diverse library of α-amino phosphonates and phosphonic acids.
IT 5381-99-7, 2-Chloro-4H-1,3,2-benzodioxaphosphorin-4-one
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of resin-bound phosphonates)
RN 5381-99-7 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



L5 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:410962 CAPLUS
DOCUMENT NUMBER: 121:10962
TITLE: Heat stabilizers for chlorine-containing resin compositions
INVENTOR(S): Hida, Toshio; Shibatsuji, Takeo
PATENT ASSIGNEE(S): Akishima Kagaku Kogyo, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

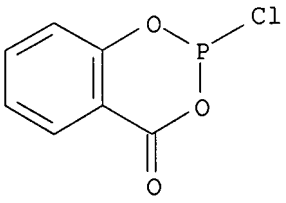
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06025493	A	19940201	JP 1992-107684	19920427
JP 08000875	B	19960110		

PRIORITY APPLN. INFO.: JP 1992-107684 19920427
OTHER SOURCE(S): MARPAT 121:10962

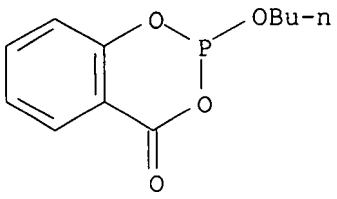
AB The title compns. contain (a) metal salts of carboxylic acids or alkylphenols, (b) β-diketones, and (c) Cl-, OH-, or hydrocarbyloxy-derivs. of salicylic phosphites. Thus, a plasticized PVC composition containing Ba stearate 0.5, Zn 12-hydroxystearate 0.2, Zn p-tert-butylbenzoate 0.2, dibenzoyl methane 0.1, salicyl chloro phosphite 0.1 phr, and other additives had good heat resistance and transparency.

IT 5381-99-7 109017-74-5 109342-59-8
155816-03-8 155816-04-9 155816-05-0
155918-59-5
RL: MOA (Modifier or additive use); USES (Uses)
(heat stabilizers, chlorine-containing resin compns. containing diketones and metal salts and)

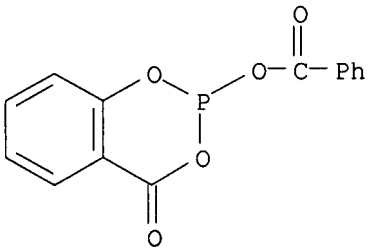
RN 5381-99-7 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



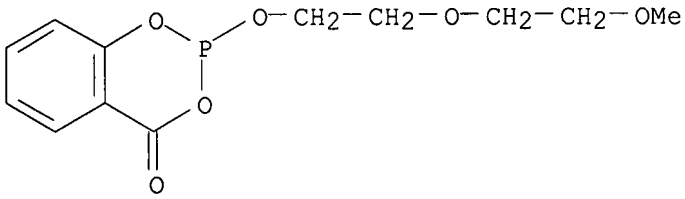
RN 109017-74-5 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-butoxy- (9CI) (CA INDEX NAME)



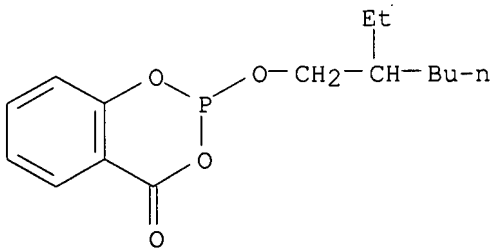
RN 109342-59-8 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-(benzoyloxy)- (9CI) (CA INDEX NAME)



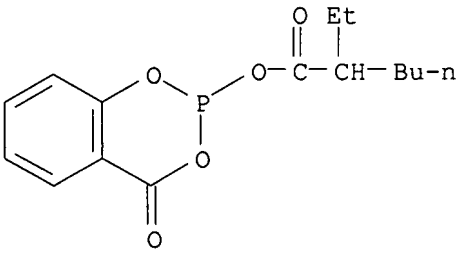
RN 155816-03-8 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-[2-(2-methoxyethoxy)ethoxy]- (9CI) (CA INDEX NAME)



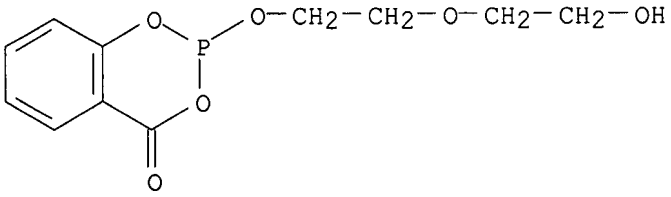
RN 155816-04-9 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-[(2-ethylhexyl)oxy]- (9CI) (CA INDEX NAME)



RN 155816-05-0 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-[(2-ethyl-1-oxohexyl)oxy]- (9CI) (CA INDEX NAME)



RN 155918-59-5 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-[(hydroxymethylethoxy)methylethoxy]-
(9CI) (CA INDEX NAME)



2 (D1—Me)

L5 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1968:478110 CAPLUS
DOCUMENT NUMBER: 69:78110
ORIGINAL REFERENCE NO.: 69:14639a,14642a
TITLE: Flameproof, hardened epoxy resins
INVENTOR(S): Vogt, Wilhelm; Janssen, Paul; Richtzenhain, Hermann
PATENT ASSIGNEE(S): Dynamit Nobel A.-G.
SOURCE: Brit., 7 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1122666		19680807	GB 1965-30423	19650816

GI For diagram(s), see printed CA Issue.

AB Flameproof hardened resins, in the form of moldings or coatings, with good mech. properties, are produced by treating a polyepoxide compound with I or II hardener. Thus, 100 g. bisphenol A diglycidyl ether (III) having epoxide value 0.53/100 g. resin and 54 g. I were mixed at 40° and hardened 20 min. at 130° to form a solid which showed flame resistance and had Martens temperature 82°. Other resins used were based on resorcinol diglycidyl ether, novolak glycidyl ether, 1,4-butanediol diglycidyl ether (IV), 4-vinylcyclohexene dioxide, and a mixture of 40 g. III and 10 g. IV. II (R = Cl, OEt, or Et) were also used. Catalysts used were triethylene glycol with 2,4,6-tris(dimethylaminomethyl)phenol, ZnCl2, and KSCN.

IT 29318-56-7 29318-57-8 29318-58-9
29318-59-0 29318-60-3 29318-61-4
29318-62-5 29318-63-6 29357-36-6
29382-15-8
RL: USES (Uses)

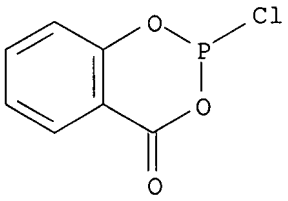
(fire-resistant)

RN 29318-56-7 CAPLUS

CN Salicylic acid, monoanhydride with phosphorochloridous acid, cyclic ester, polymer with 2,2-bis[p-(2,3-epoxypropoxy)phenyl]propane and triethylene glycol (8CI) (CA INDEX NAME)

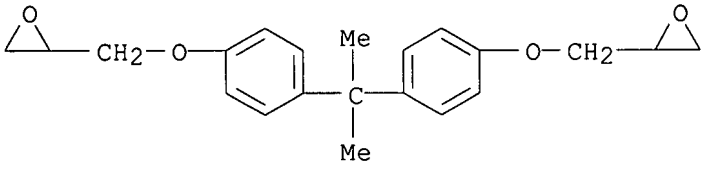
CM 1

CRN 5381-99-7
CMF C7 H4 Cl O3 P



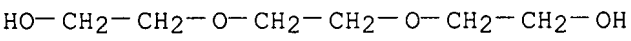
CM 2

CRN 1675-54-3
CMF C21 H24 O4



CM 3

CRN 112-27-6
CMF C6 H14 O4

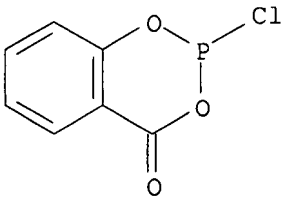


RN 29318-57-8 CAPLUS

CN Salicylic acid, monoanhydride with phosphorochloridic acid, cyclic ester, polymer with 2,2-bis[p-(2,3-epoxypropoxy)phenyl]propane and salicylic acid monoanhydride with phosphorochloridous acid cyclic ester (8CI) (CA INDEX NAME)

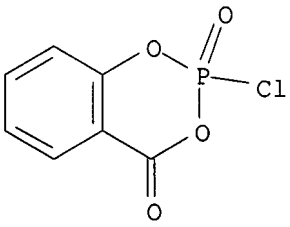
CM 1

CRN 5381-99-7
CMF C7 H4 Cl O3 P



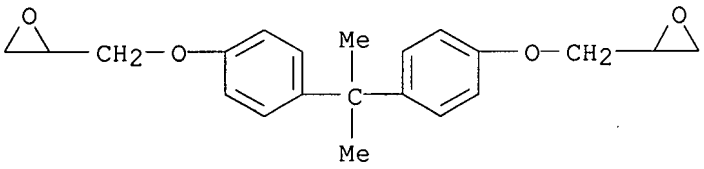
CM 2

CRN 5381-98-6
CMF C7 H4 Cl O4 P



CM 3

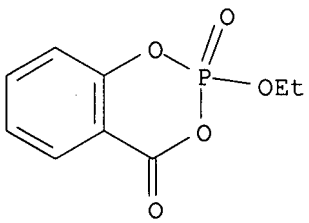
CRN 1675-54-3
CMF C21 H24 O4



RN 29318-58-9 CAPLUS
CN Salicylic acid, monoanhydride with phosphoric acid, cyclic ester, ethyl ester, polymer with 2,2-bis[p-(2,3-epoxypropoxy)phenyl]propane (8CI) (CA INDEX NAME)

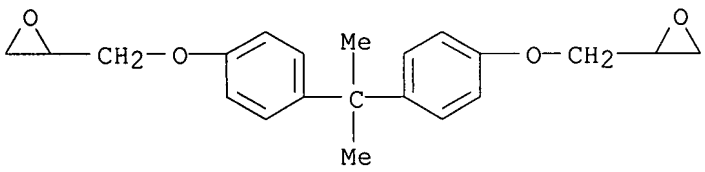
CM 1

CRN 13237-77-9
CMF C9 H9 O5 P



CM 2

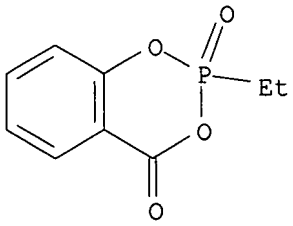
CRN 1675-54-3
CMF C21 H24 O4



RN 29318-59-0 CAPLUS
CN Salicylic acid, monoanhydride with ethylphosphonic acid, cyclic ester, polymer with m-bis(2,3-epoxypropoxy)benzene (8CI) (CA INDEX NAME)

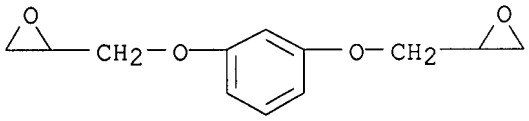
CM 1

CRN 13237-78-0
CMF C9 H9 O4 P



CM 2

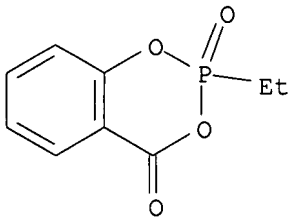
CRN 101-90-6
CMF C12 H14 O4



RN 29318-60-3 CAPLUS
CN Salicylic acid, monoanhydride with ethylphosphonic acid, cyclic ester, polymer with 1,4-bis(2,3-epoxypropoxy)butane (8CI) (CA INDEX NAME)

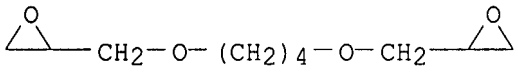
CM 1

CRN 13237-78-0
CMF C9 H9 O4 P



CM 2

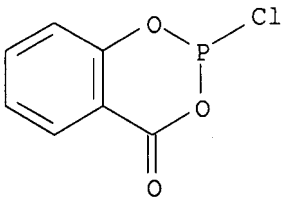
CRN 2425-79-8
CMF C10 H18 O4



RN 29318-61-4 CAPLUS
CN Salicylic acid, monoanhydride with phosphorochloridous acid, cyclic ester, polymer with 1,4-bis(2,3-epoxypropoxy)butane and 2,2-bis[p-(2,3-epoxypropoxy)phenyl]propane (8CI) (CA INDEX NAME)

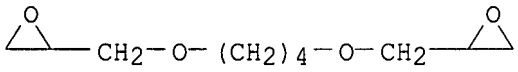
CM 1

CRN 5381-99-7
CMF C7 H4 Cl O3 P



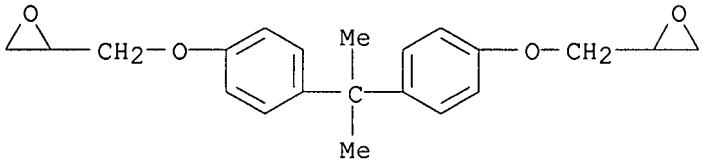
CM 2

CRN 2425-79-8
CMF C10 H18 O4



CM 3

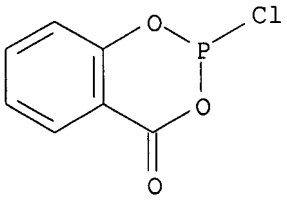
CRN 1675-54-3
CMF C21 H24 O4



RN 29318-62-5 CAPLUS
CN Salicylic acid, monoanhydride with phosphorochloridous acid, cyclic ester, polymer with 2,2-bis[p-(2,3-epoxypropoxy)phenyl]propane and phthalic anhydride (8CI) (CA INDEX NAME)

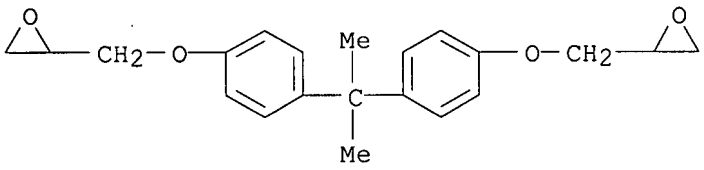
CM 1

CRN 5381-99-7
CMF C7 H4 Cl O3 P



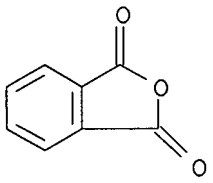
CM 2

CRN 1675-54-3
CMF C21 H24 O4



CM 3

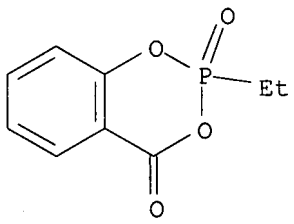
CRN 85-44-9
CMF C8 H4 O3



RN 29318-63-6 CAPLUS
CN Salicylic acid, monoanhydride with ethylphosphonic acid, cyclic ester, polymer with 2,2-bis[p-(2,3-epoxypropoxy)phenyl]propane (8CI) (CA INDEX NAME)

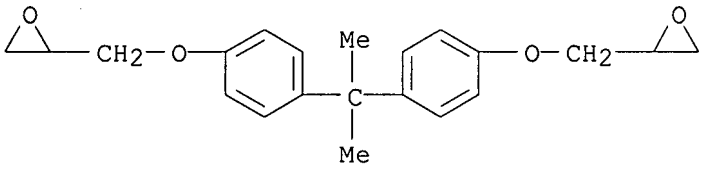
CM 1

CRN 13237-78-0
CMF C9 H9 O4 P



CM 2

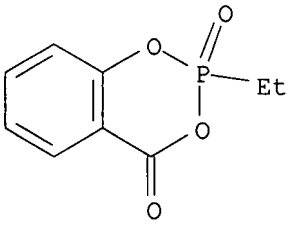
CRN 1675-54-3
CMF C21 H24 O4



RN 29357-36-6 CAPLUS
CN Salicylic acid, monoanhydride with ethylphosphonic acid, cyclic ester, polymer with 3-(epoxyethyl)-7-oxabicyclo[4.1.0]heptane (8CI) (CA INDEX NAME)

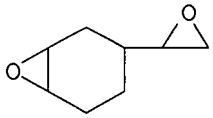
CM 1

CRN 13237-78-0
CMF C9 H9 O4 P



CM 2

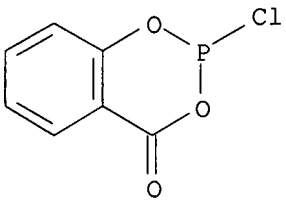
CRN 106-87-6
CMF C8 H12 O2



RN 29382-15-8 CAPLUS
CN Salicylic acid, monoanhydride with phosphorochloridous acid, cyclic ester, polymer with 2,2-bis[p-(2,3-epoxypropoxy)phenyl]propane (8CI) (CA INDEX NAME)

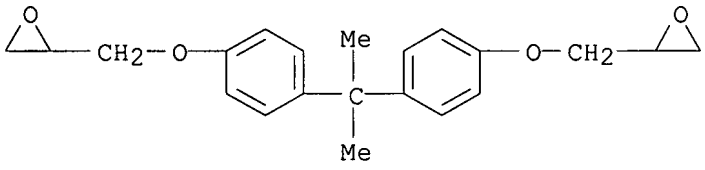
CM 1

CRN 5381-99-7
CMF C7 H4 Cl O3 P



CM 2

CRN 1675-54-3
CMF C21 H24 O4



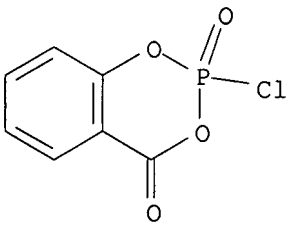
L5 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:466231 CAPLUS
DOCUMENT NUMBER: 65:66231
ORIGINAL REFERENCE NO.: 65:12367g-h
TITLE: Fireproof phosphorus-containing epoxy compounds
PATENT ASSIGNEE(S): Dynamit-Nobel A.-G.
SOURCE: 7 pp.; Addn. to Neth. Appl. 6,509,251
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6515176		19660525	NL 1965-15176	19651123
PRIORITY APPLN. INFO.:			DE	19641124

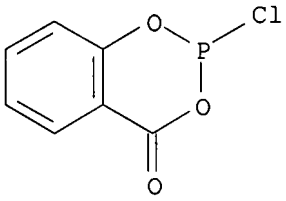
AB The preparation of the title compds. (I) can be carried out by first synthesizing the soluble adducts of polyepoxies and 2-chloro-4-oxo-5,6-benzo-1,3,2-dioxaphosphorine (II) or their 2-oxo derivs. at 0-80° followed by curing at 100-150° in the presence of polyols or phthalic anhydride derivs. Thus, 1 kg. diglycidyl ether of 2,2-bis(4-hydroxyphenyl)propane (epoxy value 0.53/100 g.) is added over 2 hrs. to 270 g. II at 40° and stirred for an addnl. 2 hrs. Of this adduct, 200 g. is heated for 1 hr. at 150° with 0.5 g. ZnCl2 dissolved in 1 g. triethylene glycol to yield a tough lacquer with a Vicat value of 105°. I are used in molding and coating compns.

IT 5381-98-6 5381-99-7
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 5381-98-6 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro-, 2-oxide (9CI) (CA INDEX NAME)



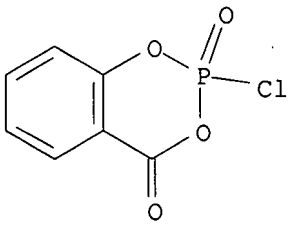
RN 5381-99-7 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



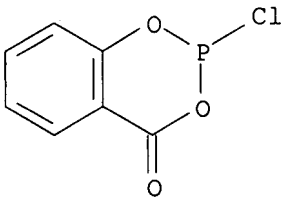
L5 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:439415 CAPLUS
DOCUMENT NUMBER: 65:39415
ORIGINAL REFERENCE NO.: 65:7396b-c
TITLE: Flameproof molding compositions and coatings
PATENT ASSIGNEE(S): DynamitNobel A.-G.
SOURCE: 14 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 666782		19660112	BE 1966-6782	19650712
FR 1439673			FR	
NL 6509251			NL	
PRIORITY APPLN. INFO.:			DE	19640717

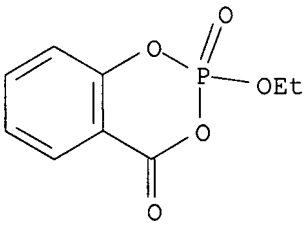
GI For diagram(s), see printed CA Issue.
AB Compds. containing ≥2 epoxy groups/mol. are mixed with a curing agent of the general formula I, in which n is 0 or 1 and R is Cl, Br, NCS, or an alkyl, aryl, alkoxy, aryloxy, or cycloalkyl group, to give materials that can be used as molding compns. and as coatings; the compns. can be cured at 100-50°. Thus, 100 g. bisphenol A diglycidyl ether (epoxy number 0.53/100 g. resin) is mixed with 54 g. 2-chloro-4-oxo-5,6-benzo-1,3,2-dioxaphosphorinine at 40° and the mixture is cured for 20 min. at 130° to give a flameproof resin, Martens value 82°.
IT 5381-98-6 5381-99-7
(Derived from data in the 7th Collective Formula Index (1962-1966))
RN 5381-98-6 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro-, 2-oxide (9CI) (CA INDEX NAME)



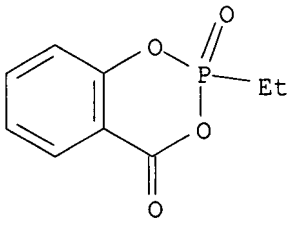
RN 5381-99-7 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro- (CA INDEX NAME)



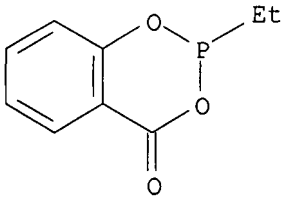
IT 13237-77-9, Salicylic acid, ethyl phosphate, cyclic anhydride
13237-78-0, Salicylic acid, ethylphosphonate, cyclic anhydride
13237-79-1, 4H-1,2,3-Benzodioxaphosphorin-4-one, 2-ethyl-
(epoxy resins cured by)
RN 13237-77-9 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-ethoxy-, 2-oxide (9CI) (CA INDEX NAME)



RN 13237-78-0 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-ethyl-, 2-oxide (9CI) (CA INDEX NAME)



RN 13237-79-1 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-ethyl- (9CI) (CA INDEX NAME)

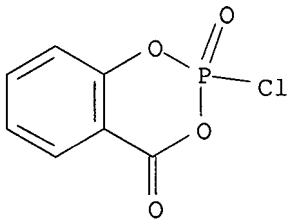


L5 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1957:34925 CAPLUS
DOCUMENT NUMBER: 51:34925
ORIGINAL REFERENCE NO.: 51:6668h-i,6669a-g
TITLE: Cholesteryl phosphates
AUTHOR(S): Montgomery, H. A. C.; Turnbull, J. H.; Wilson, W.
CORPORATE SOURCE: Univ. Edgbaston, Birmingham, UK
SOURCE: Journal of the Chemical Society (1956) 4603-6
CODEN: JCSOA9; ISSN: 0368-1769
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 51:34925

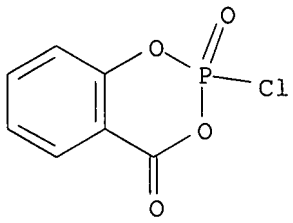
AB Cholesteryl di-Ph phosphate (I) with aqueous alc. alkali underwent both hydrolysis and ethanolysis. The major products were cholesteryl Ph (II) and cholesteryl Et H phosphates (III). The structures of II and III had been established by independent syntheses. II had been isolated previously when it was believed to be cholesteryl di-H phosphate (IV). IV itself, conveniently prepared by hydrolysis of cholesteryl phosphorodichloridate (V), formed a stable hemipyridine salt (VI). I (2.4 g.), 120 cc. alc., and 30 cc. 4N KOH refluxed gently 19 hrs. yielded 1 g. II, platelets, m. 160°, [α]D -28° (rotations measured in CHCl3 unless otherwise stated). Concentration of the mother liquors afforded 700 mg. white solid and 400 mg. sirup. Recrystn. of the solid yielded 350 mg. III, m. 156-7° (from EtOAc). In another experiment 49 mg. I was similarly treated with alkali and 1.6 moles liberated PhOH measured spectrophotometrically. II was recovered after similar treatment with alkali during 3 days. II (200 mg.), 5 cc. AcOH, and 0.5 cc. concentrated HCl warmed 10 min. at 100°, and the product diluted with H2O gave 150 mg. 3β-chlorocholest-5-ene (VII), m. 88-90°. The filtrates treated with aqueous cyclohexylamine afforded bis(cyclohexylammonium) Ph phosphate (VIII), m. 212° (decomposition). II (425 mg.) refluxed 27 hrs. with 6 cc. AcOH gave 310 mg. 3β-acetoxycholest-5-ene (IX), m. 112°, and VIII. I (100 mg.) and 3 cc. AcOH refluxed 24 hrs. gave 50 mg. IX and cyclohexylammonium di-Ph phosphate, m. 197-9°. Ph phosphorodichloridate (4.2 g.), 2.7 g. 2,6-lutidine (IXa), and 10 cc. C6H6 mixed and treated with 7.7 g. cholesterol (X) in 25 cc. C6H6, the mixture warmed to 50°, stirred 4 hrs. at room temperature and separated from 2.9 g. IXa.HCl, and the filtrate divided into 2 portions (A and B). A washed with dilute HCl and refluxed 0.5 hr. with iso-PrOH and H2O afforded 2.6 g. II, m. 160-2°. B mixed with 1.1 g. tetrahydropyran-2-ol and 1.1 g. IXa and set aside 40 hrs. yielded a sirup, presumably cholesteryl Ph tetrahydropyran-2-yl phosphate, which decomposed at 100° during 2 hrs. afforded 3 g. II. X (38.7 g.) in 150 cc. C6H6 added to 16.3 g. Et phosphorodichloridate and 10.7 g. IXa in C6H6, the solution warmed to 40°, set aside 18 hrs., and 12 g. IXa.HCl filtered off, 100 cc. tert-BuOH added, the solution refluxed 0.5 hr., H2O added, and the product isolated gave 8 g. prisms, m. 123-4°, C54H91O4P.H2O; titration of an aqueous alc. solution with aqueous KOH gave an equivalent weight of 852. The mother liquors evaporated and treated with EtOAc gave 6 g. crude III, which recrystd., m. 155-8°. Salicylic acid (69 g.) and 76.7 g. POCl3 heated to 150°, and maintained there 2 hrs., and the fraction, b0.02 116-25°, crystallized gave 39.6 g. anhydro(o-carboxyphenyl

phosphorochloridate) (XI), prisms, m. 90-3° (from CCl4). XI (8 g.) in 30 cc. CHCl3 set aside overnight with 4 g. IXa and 14.2 g. X yielded 2.6 g. cholesteryl o-carboxyphenyl H phosphate (XII), m. 141-2°, [α]D -20° (alc.), which was readily soluble in dilute NaOH. XII (165 mg.) in AcOH heated 10 min. at 100° with 0.3 cc. concentrated HCl yielded VII. The crude C5H5N-containing substance prepared from 20 g. X was extracted with ligroine and the exts. deposited 7.5 g. V, m. 110° (decomposition), [α]D -31°. V (530 mg.) triturated with 1 g. PhOH and NaOEt (from 54 mg. Na and 2 cc. alc.), excess dilute aqueous KOH added, and the precipitate repurified gave 520 mg. I, m. 113°. X (20 g.) converted to crude V, and the product hydrolyzed by refluxing 1.25 hrs. with 600 cc. H2O, the precipitate dissolved in aqueous KOH, the solution filtered through Amberlite resin IR-120(H) and evaporated, the residue refluxed with C6H6 and H2O 4 hrs., and the product crystallized gave 10.7 g. IV, irregular prisms, m. 181° (from Me2CO and moist CCl4), [α]D -21° (in alc.). IV was insol. in warm dry C6H6, CCl4, or CHCl3, but dissolved readily in the presence of H2O. Azeotropic removal of the H2O caused IV to precipitate A less soluble, metastable form, m. 187°, was obtained by rapid drying of its aqueous gel. The precipitate from X in the foregoing experiment was recrystd. from C6H6 affording VI, m. 178° (with sintering and darkening), [α]D -36°. An identical compound was formed from pure IV and aqueous C5H5N. The substance was recovered when its solution in aqueous KOH was acidified with HCl.

IT 5381-98-6, Salicylic acid, phosphorochloridate, cyclic anhydride (etc.)
RN 5381-98-6 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro-, 2-oxide (9CI) (CA INDEX NAME)



IT 5381-98-6P, 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro-, 2-oxide
RL: PREP (Preparation)
(preparation of)
RN 5381-98-6 CAPLUS
CN 4H-1,3,2-Benzodioxaphosphorin-4-one, 2-chloro-, 2-oxide (9CI) (CA INDEX NAME)



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NEWS  1          Web Page for STN Seminar Schedule - N. America
NEWS  2  JUL 02  LMEDLINE coverage updated
NEWS  3  JUL 02  SCISEARCH enhanced with complete author names
NEWS  4  JUL 02  CHEMCATS accession numbers revised
NEWS  5  JUL 02  CA/CAplus enhanced with utility model patents from China
NEWS  6  JUL 16  CAplus enhanced with French and German abstracts
NEWS  7  JUL 18  CA/CAplus patent coverage enhanced
NEWS  8  JUL 26  USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS  9  JUL 30  USGENE now available on STN
NEWS 10  AUG 06  CAS REGISTRY enhanced with new experimental property tags
NEWS 11  AUG 06  BEILSTEIN updated with new compounds
NEWS 12  AUG 06  FSTA enhanced with new thesaurus edition
NEWS 13  AUG 13  CA/CAplus enhanced with additional kind codes for granted
                 patents
NEWS 14  AUG 20  CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 15  AUG 27  Full-text patent databases enhanced with predefined
                 patent family display formats from INPADOCDB
NEWS 16  AUG 27  USPATOLD now available on STN
NEWS 17  AUG 28  CAS REGISTRY enhanced with additional experimental
                 spectral property data
NEWS 18  SEP 07  STN AnaVist, Version 2.0, now available with Derwent
                 World Patents Index
NEWS 19  SEP 13  FORIS renamed to SOFIS
NEWS 20  SEP 13  INPADOCDB enhanced with monthly SDI frequency
NEWS 21  SEP 17  CA/CAplus enhanced with printed CA page images from
                 1967-1998
NEWS 22  SEP 17  CAplus coverage extended to include traditional medicine
                 patents
NEWS 23  SEP 24  EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 24  OCT 02  CA/CAplus enhanced with pre-1907 records from Chemisches
                 Zentralblatt

NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
              CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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NEWS LOGIN    Welcome Banner and News Items
NEWS IPC8     For general information regarding STN implementation of IPC 8

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FILE 'HOME' ENTERED AT 10:42:52 ON 19 OCT 2007

=> FILR REG
FILR IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
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=> FILE REG
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21
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L1 STRUCTURE UPLOADED

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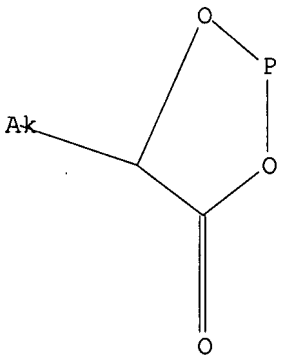

Structure attributes must be viewed using STN Express query preparation.

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FULL SEARCH INITIATED 10:44:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1410 TO ITERATE

100.0% PROCESSED 1410 ITERATIONS 203 ANSWERS
SEARCH TIME: 00.00.01

L2 203 SEA SSS FUL L1

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COST IN U.S. DOLLARS SINCE FILE TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	172.10	172.31

FILE 'CAPLUS' ENTERED AT 10:44:22 ON 19 OCT 2007
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FILE COVERS 1907 - 19 Oct 2007 VOL 147 ISS 18
FILE LAST UPDATED: 18 Oct 2007 (20071018/ED)

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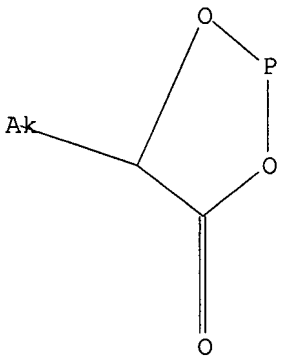

Structure attributes must be viewed using STN Express query preparation.

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L3          64 L2

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        645421 RESIN
L4           0 L3 AND RESIN

=> S L3 AND BASIC ION EXCHANGE RESIN
        409382 BASIC
       1226861 ION
        590020 EXCHANGE
        645421 RESIN
           411 BASIC ION EXCHANGE RESIN
                 (BASIC(W)ION(W)EXCHANGE(W)RESIN)
L5           0 L3 AND BASIC ION EXCHANGE RESIN
```